

BAGGAGE ASSEMBLY

The present invention relates to a baggage assembly having a collapsible container and a support for the container that can removably be stored within the container, especially when both the container and the support are folded, to provide an overall assembly having a minimum of space when both elements are folded.

Baggage assemblies having wheels and comprising a container secured to a hand truck are already known in the prior art. That type of baggage is thus practical in use but relatively bulky when not in use, since the truck portion cannot be separated from the container portion.

The prior has generally discussed having a baggage assembly wherein the truck can be removed from the container. Such an assembly has the advantage of removing the truck from the container, thereby reducing the size of the overall assembly when the hand truck is not in use. However, the container is not always well-adapted to the truck and often requires additional connections for securing the container onto the truck.

A particular object of the invention is to provide a baggage assembly having a container that can receive a relatively large volume, the container being well-adapted to the truck and the assembly being compact in its storage configuration.

To this end, the invention provides an assembly of the above-mentioned type, characterized in that it further comprises a compartment for fastening the container onto the truck in such a manner that the container can bear equally well on the truck base and on the truck frame.

Thus, in the invention, the container is well adapted to the truck and can be fastened in optimum manner on said truck. In addition, since the container can be removed from the truck, the assembly maintains the advantage of being capable of being stored in a small space. In particular, it is desired that the hand truck

be capable of being stored in the container and that the container itself be capable of being collapsed when not in use.

These and other objects of the present invention are
5 provided by a baggage assembly having a container and a removable hand truck wherein:

- a sheath is provided on the container for removably receiving the frame of said truck;

- the sheath is defined by two panels provided with
10 complementary edges designed to be connected together by a fastener, such as a zipper, separation of the complementary sheath edges enabling the frame to be inserted in the sheath;

- the panels of the sheath are trapezoidal, in such
15 a manner that the end of the sheath designed to be closer to the base of the truck is wider than the end of the sheath more removed from the base of the truck;

- the frame has a first end hinged on the base between a folded position in which the frame is folded
20 down onto the base and generally parallel to it and an upstanding position in which the frame stands up from the base, generally perpendicular to the base;

- the frame has a second end provided with a handle;

- the frame is telescopic;

- the base includes an extension piece, in
25 particular a fold-away extension piece, in the form of a metal rod;

- the container is generally in the shape of a rectangular parallelepiped comprising two end faces that
30 are connected together by side faces;

- the sheath is provided on a side face in such a manner that an end face bears on the base when the container is fastened on the truck;

- an access opening is provided in a side face that
35 is opposite from the side face of the sheath, to allow access to the interior of the container;

- the container can be folded up by moving the two end faces together, each end face being provided with complementary fasteners, such as a zipper, for releasably maintaining the container in its folded configuration;

- 5 · the container is made of pliable material; and
- the container comprises a pocket for receiving the folded truck.

The invention will be better understood on reading the following description, given solely by way of example, and made with reference to the accompanying drawings, in which:

- Figure 1 is a perspective front view of a baggage assembly of the invention;

- Figure 2 is a perspective rear view of the baggage assembly of the invention;

- Figure 3 is a perspective view of the hand truck of the baggage assembly, in which the hand truck is in a deployed or unfolded configuration;

- Figure 4 is a plan view of the hand truck of the baggage assembly of the invention, in which the hand truck is in a folded configuration;

- Figure 5 is a rear view of the container of the baggage assembly of the invention, which the container is in the deployed or non-collapsed configuration; and

- 25 · Figure 6 is a view of the container of Figure 5, in the folded or collapsed configuration.

Figures 1 and 2 show a baggage-forming assembly given overall reference 10, Figure 1 being a perspective front view of the assembly 10, and Figure 2 being a perspective rear view of the assembly 10.

The assembly 10 includes a hand truck, generally designated 12, and a collapsible or foldable container, generally designated 13, that can be separated from the truck 12. In the example described, the container is generally in the form of a pliable bag.

Hand truck 12 forms a bell-crank lever pivoted about an axis formed by support elements 14. The support

elements 14 advantageously take the form of two wheels 16. Wheels 16 are disposed apart from each other, with the spacing between the two wheels adapted to the width of the container 13 so as to ensure that the assembly 10
5 is stable while the container 13 is fastened on the truck 12. The truck 12 has a base 18 forming a first arm of the bell-crank, and a frame 20 forming a second arm of the bell-crank.

In the preferred embodiment, the spacing between the
10 wheels is slightly less than the confines of container 13. While stability would also be achieved by making the spacing between the wheels even greater, by having the wheels (and the overall base 18 of the hand truck 12) somewhat smaller than the confines of end face 38b of the
15 collapsible bag, stability is provided while, at the same time, the hand truck 12 may be folded and can fit within container 13, as will be explained hereinafter.

The assembly 10 is designed in such a manner that the container 13 is well adapted to the truck 12. To
20 this end, the assembly 10 includes a fastener assembly 22 provided on the container 13 for fastening the container 13 onto the truck 12 in such a manner that the container 13 can bear equally well on hand truck base 18 and on hand truck frame 20.

25 The fastener assembly 22 includes a sheath 24 provided on the container 13. The sheath provides a compartment in which the frame 20 is intended to be received. The sheath 24 is defined by two panels 26 provided with complementary edges designed to be
30 connected together by releasable fasteners, such as a zipper 28. When zipper 28 is opened, the edges of the panels 26 may be separated opening, one from the other, thereby opening the compartment and providing access to sheath 24.

35 Thus, when the container 13 is full and therefore relatively heavy, the container 13 can still be fastened easily onto the truck 12 by opening the zipper 28

enabling the two panels 26 to be moved apart. The frame 20 of the hand truck is then inserted between the two panels 26, which are then closed over the frame 20 by closing zipper 28.

5 Advantageously, the panels 26 of the sheath 24 are trapezoidal, in such a manner that the end of the sheath 24 designed to be closer to the base 18 is the wider end. In other words, the bottom end of the sheath is wider than the top end of the sheath (e.g., the end of the
10 sheath more removed from the base of the frame), as can be seen in Figure 2. The generally trapezoidal shape of the sheath also makes it possible to distinguish the end of container 13 that bears or rests on base 18 of the hand truck from the end of the container that is remote
15 from hand truck base 18.

 It should also be noted that the sheath 24 has reinforcing pieces 30 designed to cover the zones where the sheath 24 is subject to wear, that is, the areas where the frame 20 of the hand truck bears against the
20 sheath.

 Thus sheath 24 provides a support for container 13 in a manner in which the container can be easily and readily attached to the frame of the hand truck. At the same time, the base 18 of the hand truck readily supports
25 container 13. Thus, the assembly provides a way for fastening the container equally well on base 18 of the truck and on frame 20 of the truck.

 Figures 3 and 4 show the truck 12 in greater detail.

 Since the container 13 can be removed from the truck
30 12 (by opening zipper 28 and removing the frame of the truck from sheath 24), the container 13 and the truck 12 are easier to store whenever the assembly 10 is not in use. In order to make storage even easier, the truck 12 is suitable for folding between a deployed or unfolded
35 working configuration (shown in Figure 3) and a folded storage configuration (shown in Figure 4).

It should be noted in Figure 3 that the frame 20 is provided with two telescopic tubes, and that it has a first end 20a hinged on the base 18.

5 Frame 20 is capable of moving between a folded position in which the frame 20 is folded down onto the base 18 such that frame 20 is generally parallel to base 18 (see Figure 4) and an upstanding position in which the frame 20 is generally perpendicular to base 18 (see Figure 3).

10 The frame 20 also has a second end 20b provided with a holding element, e.g. a handle 32, interconnecting the two telescopic tubes. The handle 32 includes an actuator 34 making it possible to control deployment of the telescopic frame 20.

15 Base 18 may also include an extension piece, e.g. a fold-away extension piece, comprising a metal rod 36. The metal rod 36 is bent in such a manner as to form a bracket for holding the container 13 on the base 18 (see Figure 1). When the container is loaded and resting on
20 base 18, metal extension piece 36 is deployed. On the other hand, when the hand truck is folded for storage, extension piece 36 is folded away, in order to reduce the size of base 18.

Figure 4 shows hand truck 12 in its folded position.
25 When so folded, the hand truck occupies as little storage space as possible. More particularly, in the folded position, the telescopic frame 20 is retracted telescopically substantially to one fourth of its size in the deployed position, and it is then folded down onto
30 the base 18. Similarly, the metal rod 36 is also folded onto the base 18 in such a manner that the truck occupies only a relatively small volume.

A feature of the present invention is that container
35 13 can also be folded up or collapsed, as may be appreciated by comparing the container as shown in Figure 5 and in Figure 6.

In the deployed or non-collapsed configuration, the container 13 is generally in the shape of a rectangular parallelepiped, as shown in Figure 1. The container 13 thus has two end faces 38a and 38b that are connected
5 together by side faces 40.

It should be noted that in order to stiffen the container 13 in the deployed position, the assembly 10 may include a foldable stiffening lining (not shown).

The sheath 24 is defined by one of the side faces 40
10 and by the two panels which are sewn onto said side face 40, while the side face opposite from the side face of the sheath has an access opening 41 that is generally closed by a zipper or other appropriate fastener. The access opening provides access to the interior of
15 container 13.

Figure 5 is a view of one of the side faces 40, referred to as the "rear" face 40a of the container 13 when it is in its deployed or non-collapsed (e.g., non-folded) position. The sheath 24 is provided on said rear
20 face 40a in such a manner that the end face 38b closer to the wider end of the sheath 24 rests on the base 18 when the container 13 is fastened on the truck 12 (see Figure 1).

The elements of the container 13 shown in Figure 2
25 are referenced in identical manner in Figure 5.

Each end 38a, 38b also includes a handle 42a, 42b, enabling the user to lift the container regardless of which way it is facing.

The container 13 includes another handle 44 provided
30 on a side face 40 adjacent to the face having the sheath 24, enabling the user to carry the container 13 in the same way as a sports bag.

Figure 6 is a view similar to Figure 5, but with the container 13 in its collapsed and folded position.

35 In order to be easy to fold up, the container 13 is made of pliable material. Such a material can include nylon or canvas, although other materials may be used.

The container can thus be folded up by moving the two end faces 38a, 38b together, each end face being provided with complementary fastener element, such as a zipper 46, for maintaining the container in its the folded-up configuration.

Thus both hand truck 12 and the container 13 can be folded in such as manner as to occupy as little storage space as possible.

Advantageously, container 13 includes a pocket 48 (shown in Figure 1) for receiving and storing hand truck 12, said pocket being designed to be closed by a zipper or other fastener 50. The folded truck 12 is therefore capable of being received in the folded-up container 13 so as to make the assembly 10 as small as possible, and preferably so as to ensure that the truck 12 is stored together with the container 13.

While the present invention has been described with reference to a particular embodiment, it is apparent that other and further refinements thereof are possible. For example, while the fasteners described in the invention have taken the form of zippers, it is apparent that other ways of keeping the elements of container releasably closed are possible. For example, the elements may be kept closed by cooperating "Velcro" fasteners. Thus the above description is merely illustrative of the present invention, which is defined by the following claims.